WHAT IS CLAIMED IS:

1. A test circuit of an integrated circuit, the test circuit comprising:

a connection pad;

a measurement converter circuit connected to the connection pad and configured for converting one or more circuit-internal signals into a measured value; and

an activation unit connected to the connection pad and configured for activating the measurement converter circuit in response to an activation signal received via the connection pad; the activation unit being configured in such a way as to permanently switch on the measurement converter circuit in response to the activation signal, it then being possible to tap off the measured value via the connection pad.

2. The test circuit of claim 1, wherein the activation unit comprises:

an SR flip-flop; and

a switching element which, with the SR flip-flop not set, is switched to connect the connection pad to a predetermined potential via a defined resistor and which, with the SR flip-flop set, is switched to isolate the connection pad from the predetermined potential.

3. The test circuit of claim 2, wherein the SR flip-flop is set in response to the activation signal.

4. The test circuit of claim 2, wherein the connection pad is connected to a set input of the SR flip-flop in order to set the SR flip-flop in response to the activation signal.

5. The test circuit of claim 2, wherein the switching element comprises a field-effect transistor.

6. The test circuit of claim 2, further comprising a reset input of the SR flip-flop configured to receive one or more signals to reset the SR flip-flop and to deactivate the measurement converter circuit.

7. The test circuit of claim 1, wherein the measurement converter circuit comprises a phase comparison unit, which compares the phase angle of a first and a second periodic signal with one another and outputs a pulse-width-modulated signal depending on the phase angle.

8. The test circuit of claim 1, wherein the measurement converter circuit comprises a digital-to-analog converter unit configured to convert a digital signal into an analog voltage value capable of being output as the measured value.

9. A test circuit of an integrated circuit, the test circuit comprising:

a measurement converter circuit configured for converting one or more circuit-internal signals into a measured value and outputting the measured value for receipt by an external testing device; and

an activation unit configured for activating the measurement converter circuit in response to an activation signal.

10. The test circuit of claim 9, further comprising:

a connection pad to which the measurement converter circuit and activation unit are connected; and

a switching element which is switchable to connect the connection pad to a predetermined potential and switchable to isolate the connection pad from the predetermined potential.

11. The test circuit of claim 9, wherein the measurement converter circuit comprises a phase comparison unit, which compares the phase angle of a first and a second periodic signal with one another and outputs a pulse-width-modulated signal depending on the phase angle.

12. An apparatus, comprising:

a test circuit of an integrated circuit, the test circuit comprising:

a measurement converter circuit configured for converting one or more circuit-internal signals into a measured value; and

an activation unit configured for activating the measurement converter circuit in response to an activation signal; and

a test system comprising a tester device connected to the integrated circuit via a tester channel in order to transmit the activation signal to the activation unit and, after the transmission of the activation signal, to receive the measured value.

13. The apparatus of claim 12, wherein the tester device is configured to compare the received measured value with a desired measured value in order to check a function of the integrated circuit.

14. The test circuit of claim 9, wherein the measurement converter circuit comprises a phase comparison unit, which compares the phase angle of a first and a second periodic signal with one another and outputs a pulse-width-modulated signal depending on the phase angle.

15. The apparatus of claim 12, wherein the test circuit comprises a connection pad to which the measurement converter circuit, the activation unit and the tester device are connected, whereby the activation unit receives the activation signal via the connection pad and the measurement converter circuit outputs the measured value to the connection pad.

16. The apparatus of claim 15, wherein the test circuit further comprises a switching element which is switchable to connect the connection pad to a predetermined potential and switchable to isolate the connection pad from the predetermined potential.

17. A method of checking a function of a circuit in an integrated circuit, comprising:

applying an activation signal to a connection pad of the integrated circuit;

in response to the activation signal, measuring one or more circuit-internal signals of the circuit, the one or more circuit-internal signals being dependent on the function being checked;

as a result of the measuring, outputting a measured value characterizing the one or more circuit-internal signals; and

reading out the measured value via the connection pad.

18. The method of claim 17, applying a pulse signal as the activation signal to the connection pad in order to store an information item, wherein the measuring being carried out is dependent on the information item.

19. The method of claim 17, wherein the one or more circuit-internal signals are two periodic circuit-internal signals and wherein the measured value is a phase signal obtained by a comparison of the two periodic circuit-internal signals.

20. The method of claim 17, wherein the activation signal activates an activation unit of the integrated circuit and configured for activating a measurement converter circuit of the integrated circuit, the measurement converter circuit being configured to perform the measuring.

21. The method of claim 20, further comprising deactivating the measurement converter circuit.